

REMARKS

Claims 1-3 and 6-30 were presented for examination. Claims 1-3 and 6-24 stand rejected. Claims 1-3 and 6-30 are presently pending in this application, of which claims 1, 9, 14 and 20 are independent claims. Applicant submits that claims 1-3 and 6-30 are in condition for allowance.

The following comments address all stated grounds of rejection. Applicant respectfully urges the Examiner to pass the claims to allowance in view of the remarks set forth below.

Drawings Objection

The Examiner objected to the drawings under 37 CFR 1.83(a) for the failure to show in the drawings the feature of determining interfaces between one of the networks components and the network component monitoring agent as recited in claims 8 and 19. Applicant respectfully disagrees with the Examiner and contends this feature is shown in the figures.

Applicant respectfully directs the Examiner's attention to Figures 4 and 10 showing the feature recited in claims 8 and 19. Figure 4 depicts interfaces as interface objects between the monitoring agents (63-66, Fig. 4) and the enterprise (71, Fig. 4), which includes network components (see page 27, line 21-29 of the specification). Figure 10 depicts an illustrative enterprise management platform with SpectroServers (SS), e.g., monitoring agents (116-118, Fig. 10), interfaced with the enterprise (119, Fig. 10) to monitor manageable devices, e.g., network components (see page 40, line 5 to page 41, line 27 of the specification). In view of Figures 4 and 10 in conjunction with the description of the specification, one ordinarily skilled in the art would recognize and appreciate that an interface

between a monitoring agent and a network component would be determined based on the type and/or form of monitoring agent and the network component being monitored.

Therefore, Applicant respectfully submits that the drawings show every feature of the invention specified in the claims. Accordingly, Applicant requests the Examiner to reconsider and withdraw this objection.

Claim Rejections Under 35 USC §112

I. Claims 1-3 and 6-30 Rejected Under 35 U.S.C. §112, Second Paragraph

Claims 1-3 and 6-30 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for not particularly pointing out and distinctly claiming the subject matter which Applicant regards as his invention. Applicant respectfully traverses this rejection.

Specifically, the Examiner in the Office Action indicates that claims 1-3 and 6-30 recite the limitation “service level management domain,” which the Examiner indicates is not specifically defined by the specification. Applicant respectfully disagrees with the Examiner and contends that the specification defines the limitation “service level management domain.” Applicant directs the Examiner attention to page 19, lines 15-23, page 23, lines 11-30, and page 80, lines 13-29 of the specification in conjunction with Figure 1. On at least page 19 and page 23, the specification describes the element of Figure 1 labeled with reference number 10 as the SLM domain model, or the service level management domain.

For at least the aforementioned reasons, claims 1-3 and 6-30 particularly point out and distinctly claim the subject matter to which the Applicant regards as his invention. Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw the rejection of claims 1-3 and 6-30 under 35 U.S.C. §112, second paragraph.

Claim Rejections Under 35 USC §102**II. Claims 1, 6-9, 11-14, 17-20 and 22-24 Stand Rejected Under 35 U.S.C. §102(e) As Anticipated By Glitho**

Claims 1, 6-9, 11-14, 17-20 and 22-24 stand rejected under 35 U.S.C. §102(e) as anticipated by Glitho (U.S. Patent No. 6,233,449) (“Glitho”). Applicant respectfully traverses this rejection.

A. Independent Claims 1 and 14 Patentably Distinguished over Glitho

Independent claims 1 and 14 are directed towards a method and medium, respectively. These independent claims recite the step of selecting one component parameter providing an indication of an operational characteristic of a selected network component. The selected network component performs an operation in support of the service supporting the business process under *service level management* in association with a *service level management domain*. These independent claims also recite the step of declaring a service parameter having a state representative of a measure of performance of the service supporting the business process under *service level management* in association with the *service level management domain*. The state has a value used to determine conformity to an agreed upon service level. Independent claims 1 and 14 further recite the step of determining how a selected component parameter has an effect on a state of a service parameter to provide *service level management of a business process in association with a service level management domain*.

Glitho does not disclose a method for determining how a selected component parameter has an effect on a state of a service parameter to provide *service level management of a business process in association with a service level management domain*. Rather, Glitho is focused on a self-engineering network, which monitors network elements in order to provide maintenance to the network. Glitho discusses an operation and maintenance control

point ("OMCP") operating at an intermediate level in a telecommunications network between network elements and a network management system. The OMCP of Glitho provides an apparatus at the network element management layer which manages individual network elements below the network management system layer. The purpose of the OMCP is to reduce the processing load on the network management system by providing corrective actions instead of reporting problems associated with network elements.

The claimed invention provides service level management of business processes which are composed of services. Service level management measures services by means of service parameters, which are marked by service levels. In some embodiments, the service management layer may interface with a network management system or layer concerned with network management, such as network monitoring, bandwidth control and network congestion control. In turn, the network management system may interface with a network element management layer which manages individual network elements, such as switches, routers, bridges and transmission facilities (e.g., see page 80, lines 19-29, of the specification). In contrast to the claimed invention, Glitho does not disclose providing *service level management of a business process in association with a service level management domain*. Instead, Glitho provides network element management of a network element in association with a network management system. Therefore, Glitho does not disclose determining how a selected component parameter has an effect on a state of a service parameter to provide *service level management of a business process in association with a service level management domain*.

For at least the aforementioned reasons, Glitho fails to disclose a method for determining how a selected component parameter has an effect on a state of a service parameter to provide *service level management of a business process in association with a service level management domain*. Therefore, Applicant submits that claims 1 and 14 are

patentable and in condition for allowance. Claims 6-8 depend on and incorporate the patentable subject matter of independent claim 1. Claims 17-20 depend on and incorporate the patentable subject matter of independent claim 14. Thus, Glitho fails to anticipate claims 6-8 and 17-20. Accordingly, Applicant requests the Examiner to withdraw the rejection of claims 1, 6-8, 14, and 17-20 under 35 U.S.C §102.

B. Independent Claims 9 and 20 Patentably Distinguished over Glitho

Independent claims 9 and 20 are directed towards a method and medium, respectively. These independent claims recite the step of identifying component parameters associated with one or more network entities, and designating one of the component parameters a service parameter. The service parameter provides an indication of a state of the service supporting a business process under service level management in association with a service level management domain associated with the network. These independent claims also recite the step of determining from the service parameter a level of service to manage the service in order to provide service level management of the business process in association with the service level management domain. The level of service is indicative of a measure of performance of the service.

Glitho does not disclose a method for determining from the service parameter a level of service to manage the service in order to provide service level management of the business process in association with the service level management domain. Rather, Glitho discusses an operation and maintenance control point (“OMCP”) at the network element management layer. The OMCP interfaces with a network management system to provide a self-engineering network. That is, Glitho monitors and manages network elements in order to maintain the network. In contrast to the claimed invention, Glitho does not disclose providing service level management of a business process in association with a service level

management domain. Instead, Glitho provides management of a network element in association with a network. Therefore, Glitho does not disclose determining from the service parameter a level of service to manage the service in order to provide service level management of the business process in association with the service level management domain.

For at least the aforementioned reasons, Glitho fails to disclose a method for determining from the service parameter a level of service to manage the service in order to provide service level management of the business process in association with the service level management domain. Therefore, Applicant submits that claims 9 and 21 are patentable and in condition for allowance. Claims 11-13 depend on and incorporate the patentable subject matter of independent claim 9. Claims 22-24 depend on and incorporate the patentable subject matter of independent claim 20. Thus, Glitho fails to anticipate claims 11-13 and 22-24. Accordingly, Applicant requests the Examiner to withdraw the rejection of claims 9, 11-13, 20, and 22-24 under 35 U.S.C §102.

Claim Rejections under 35 USC §103

III. Claims 2, 3, 15 and 16 Rejected Under 35 U.S.C. §103 As Unpatentable over Glitho in view of Hunter

Claims 2, 3, 15 and 16 are rejected under 35 U.S.C. §103 as unpatentable over Glitho in view of Hunter (U.S. Patent No. 6,449,603) (“Hunter”). Applicant respectfully traverses this rejection.

A. Non-obviousness of Claims Dependent from Patentable Independent Claims 1 and 14

Glitho in view of Hunter fails to teach or suggest each and every claim limitation of dependent claims 2, 3, 15, and 16. Claims 2 and 3 depend on and incorporate all the patentable limitations of independent claim 1. Claims 15 and 16 depend on and incorporate all the patentable limitations of independent claim 14. Glitho does not anticipate independent claims 1 and 14 for the reasons discussed in connection with the claim rejections under 35 U.S.C. §102. As such, claims 2, 3, 15, and 16 are also not anticipated by Glitho.

In the rejection of these dependent claims in the Office action, Hunter is cited to suggest one ordinarily skilled in the art might modify Glitho to represent how the component parameter has an effect on the service parameters by one or more of the following: a decision tree, a propositional statement, a quantified statement, a weighted listing, and a graph.

Additionally in the Office Action, Hunter is cited to suggest one ordinarily skilled in the art might modify Glitho to determine how the component parameter has an effect on the service parameter by one of the following processes: a data mining based process, a neural network based process, a machine learning based process, an IDS derivative (iterative dichotomizing third) based process, an algorithm based process, and a selected statistical based process.

Hunter does not teach or suggest providing *service level management of a business process in association with a service level management domain*. As such, Hunter fails to bridge the factual deficiencies of the Glitho reference.

Moreover, there is no suggestion or motivation in the references of Glitho in view of Hunter, or in the knowledge of one ordinarily skilled in the art to combine Hunter with Glitho. Glitho describes an apparatus for network element management in conjunction with a network management system. The purpose of Glitho is to reduce the processing load on the network management system by providing corrective actions instead of reporting problems.

In contrast, Hunter describes a method for improving the performance of learning agents by using paired agents to produce a more accurate prediction method from the training of such agents. By pairing learning agents in the training process, Hunter increases the accuracy of the prediction method associated with training data.

Nowhere in Glitho or Hunter is there a motivation or suggestion to combine the teachings of a network element management apparatus with the teachings of a method for training paired learning agents. Furthermore, there is no suggestion or motivation in the knowledge of one ordinarily skilled in the art, at the time of the claimed invention, to combine the teachings of Hunter with the reference of Glitho. Nevertheless, even if one were to combine Glitho in view of Hunter, the combined references do not teach or suggest providing *service level management of a business process in association with a service level management domain*.

For at least the aforementioned reasons, Applicant submits that Glitho in view of Hunter fails to detract from the patentability of claims 2, 3, 15, and 16. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection of claims 2, 3, 15, and 16 under 35 U.S.C. §103.

IV. Claims 10 and 21 Rejected Under 35 U.S.C. §103 As Unpatentable over Glitho in view of Hunter in further view of Adriaans

Claims 10 and 21 are rejected under 35 U.S.C. §103 as unpatentable over Glitho in view of Hunter in further view of Adriaans et al. (U.S. Patent No. 6,331,175) (“Adriaans”). Applicant respectfully traverses this rejection.

A. Non-obviousness of Claims Dependent from Patentable Independent Claims 9 and 20

Glitho in view of Hunter in further view of Adriaans fails to teach or suggest each and every claim limitation of dependent claims 10 and 21. Claim 10 depends from and incorporates all the patentable limitations of independent claim 9. Claim 21 depends from and incorporates all the patentable limitations of independent claim 20. Glitho does not anticipate claims 9 and 20 for the reasons discussed in connection with the claim rejections under 35 U.S.C. §102. As such, claims 10 and 21 are also not anticipated by Hunter.

In the rejection of these dependent claims in the Office action, Adrianns is cited to suggest one ordinarily skilled in the art might modify Glitho in view of Hunter to store the component parameters associated with the one or more network entities in a storage device. As with Glitho and Hunter, Adriaans does not teach or suggest providing *service level management of a business process in association with a service level management domain*. As such, Adrianns fails to bridge the factual deficiencies of the Glitho and the Hunter references.

Therefore, Applicant submits that Glitho in view of Hunter in further view of Adrianns fails to detract from the patentability of claims 10 and 21. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection of claims 10 and 21 under 35 U.S.C. §103.

V. Claims 25, 27, 29 and 30 Rejected Under 35 U.S.C. §103 As Unpatentable over Glitho in view of Yemini

Claims 25, 27, 29 and 30 are rejected under 35 U.S.C. §103 as unpatentable over Glitho in view of Yemini et al. (U.S. Patent No. 6,249,755) (“Yemini”). Applicant respectfully traverses this rejection.

A. Patentability of Dependent Claims 25, 27, 29 and 30

Glitho in view of Yemini fails to teach or suggest each and every claim limitation of dependent claims 25, 27, 29, and 30. Claim 25 depends from and incorporates all the patentable limitations of independent claim 1. Claim 27 depends from and incorporates all the patentable limitations of independent claim 9. Claim 29 depends from and incorporates all the patentable limitations of independent claim 14. Claim 30 depends from and incorporates all the patentable limitations of independent claim 20. Glitho does not anticipate independent claims 1, 9, 14, and 20 for the reasons discussed in connection with the claim rejections under 35 U.S.C. §102. As such, claims 25, 27, 29, and 30 are also not anticipated by Glitho.

Dependent claim 25 recites the claim limitation of the service level management domain comprises a plurality of *management applications* integrated into a *hierarchical* structure having a plurality of layers. Dependent claim 27 recites the service level management domain comprises a plurality of *management applications* arranged in a *hierarchical* manner. Dependent claim 29 recites the service level management domain comprises a plurality of *executable applications* arranged in a *hierarchical* manner. Dependent claim 30 recites the service level management domain comprises a plurality of *executable applications* performing a plurality of functions in a *hierarchical* manner.

In the rejection of these dependent claims in the Office action, Yemini is cited to suggest one ordinarily skilled in the art might modify Glitho to provide a service level management domain having the features recited in claims 25, 27, 29, and 30. As with Glitho, Yemini does not teach or suggest providing service level management of a business process in association with a service level management domain. As such, Yemini fails to bridge the factual deficiencies of the Glitho reference.

Furthermore, Yemini does not teach or suggest a service level management domain having the patentable claim limitations of claims 25, 27, 29, and 30. Yemini describes a computer implemented apparatus for event correlation and problem reporting. In the Office Action, the Examiner cites a network modeling architecture described in the Background section of Yemini (see column 7, lines 8-60, Yemini). In the cited network modeling architecture of Yemini, the network under observance is modeled as an object-oriented hierarchy with the network elements modeled as objects (see column 7, lines 8-23, Yemini). The object-oriented model provides only for the knowledge-based component of the event correlation system (see column 7, lines 24-36).

The claimed invention recites a service level management domain having executable or management applications arranged or performing in a hierarchical manner, or integrated in a hierarchical structure. In contrast, Yemini discusses objects representing network elements arranged in an object-oriented hierarchy for a knowledge-base. As such, Yemini does not teach or suggest a service level management domain having applications arranged in a hierarchical manner as in the claimed invention. Thus, Yemini fails to teach or suggest a service level management domain having the patentable limitations of claims 25, 27, 29, and 30.

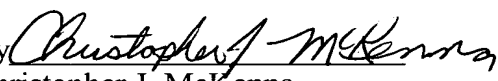
Therefore, Applicant submits that Glitho in view of Yemini fails to detract from the patentability of claims 25, 27, 29, and 30. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection of claims 25, 27, 29, and 30 under 35 U.S.C. §103.

CONCLUSION

In view of the remarks set forth above, Applicant contends that the claims presently pending in this application are patentable and in condition for allowance. Applicant respectfully urges the Examiner to pass the claims to allowance.

Respectfully submitted,
LAHIVE & COCKFIELD, LLP

Dated: February 23, 2005

By 
Christopher J. McKenna
Registration No.: 53,302
Attorney For Applicant

Lahive & Cockfield, LLP
28 State Street
Boston, Massachusetts 02109
(617) 227-7400
(617) 742-4214 (Fax)